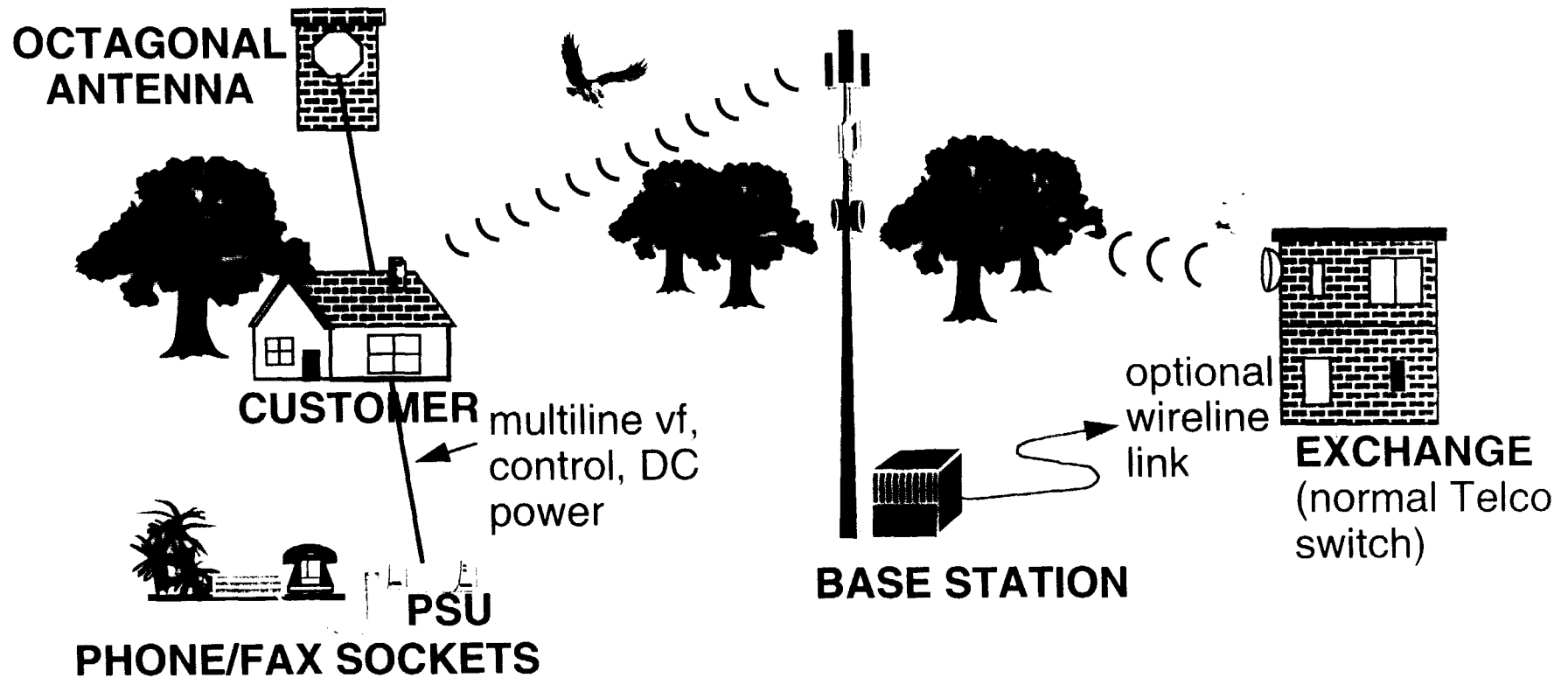


Wireline "Equivalent" System

NORTEL
NORTHERN TELECOM



- Wireline quality full service transparency with 32 kb/s ADPCM voice & 64kb/s fax/data
- Direct connection to PSTN switch

Proximity I Series

NORTEL
NORTHERN TELECOM

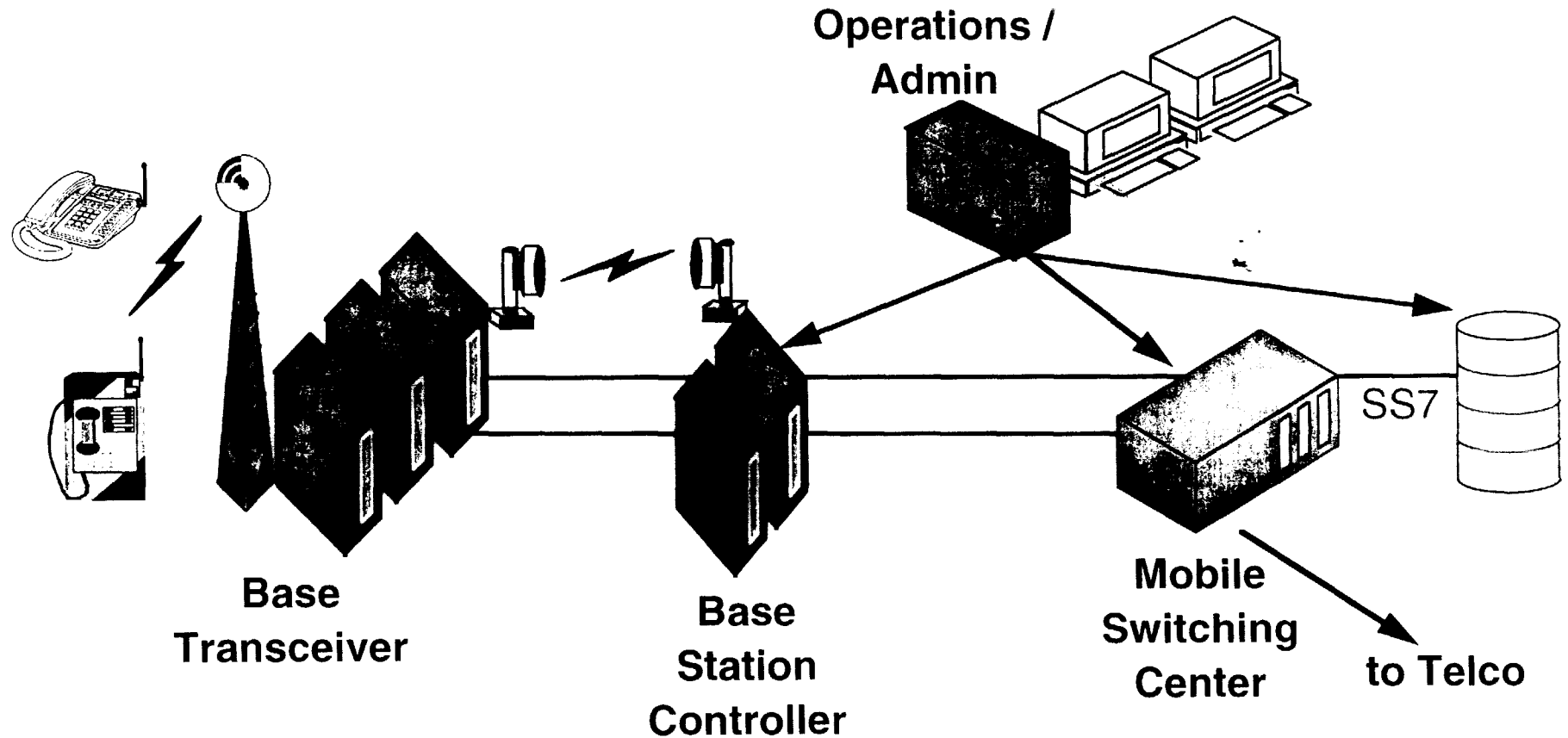


- OUTDOOR
- INTEGRATED ANTENNA/
RADIO UNIT
 - 30CM ACROSS FLATS

- INDOOR
- 2 LINES
 - CONNECTION FOR ALL STANDARD
TELEPHONE APPARATUS



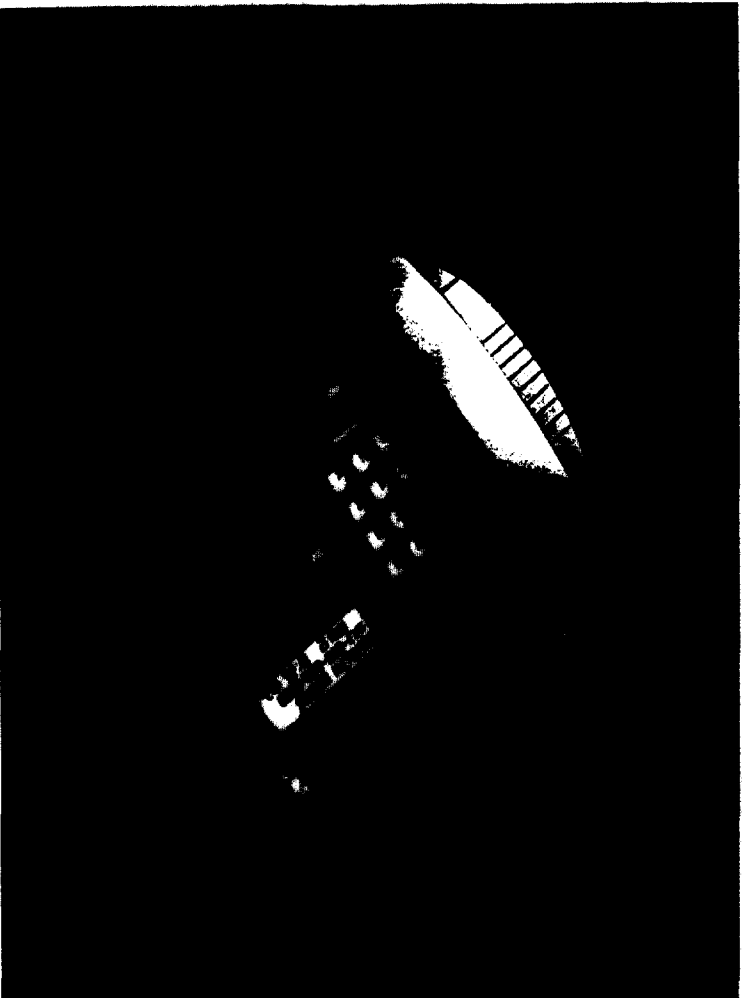
Cellular Telephony



- Flexible configurations
- Supports fixed and mobile users

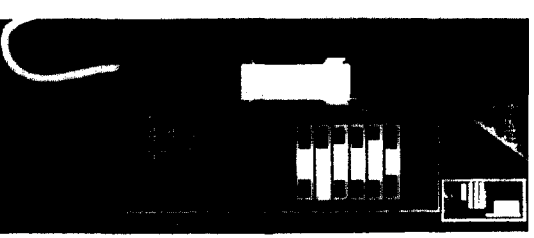
Fixed Wireless Terminals

NORTEL
NORTHERN TELECOM



PROXIMITY-T Terminal

**Public Pay
Terminal**



Broadband Wireless Access

NORTEL
NORTHERN TELECOM

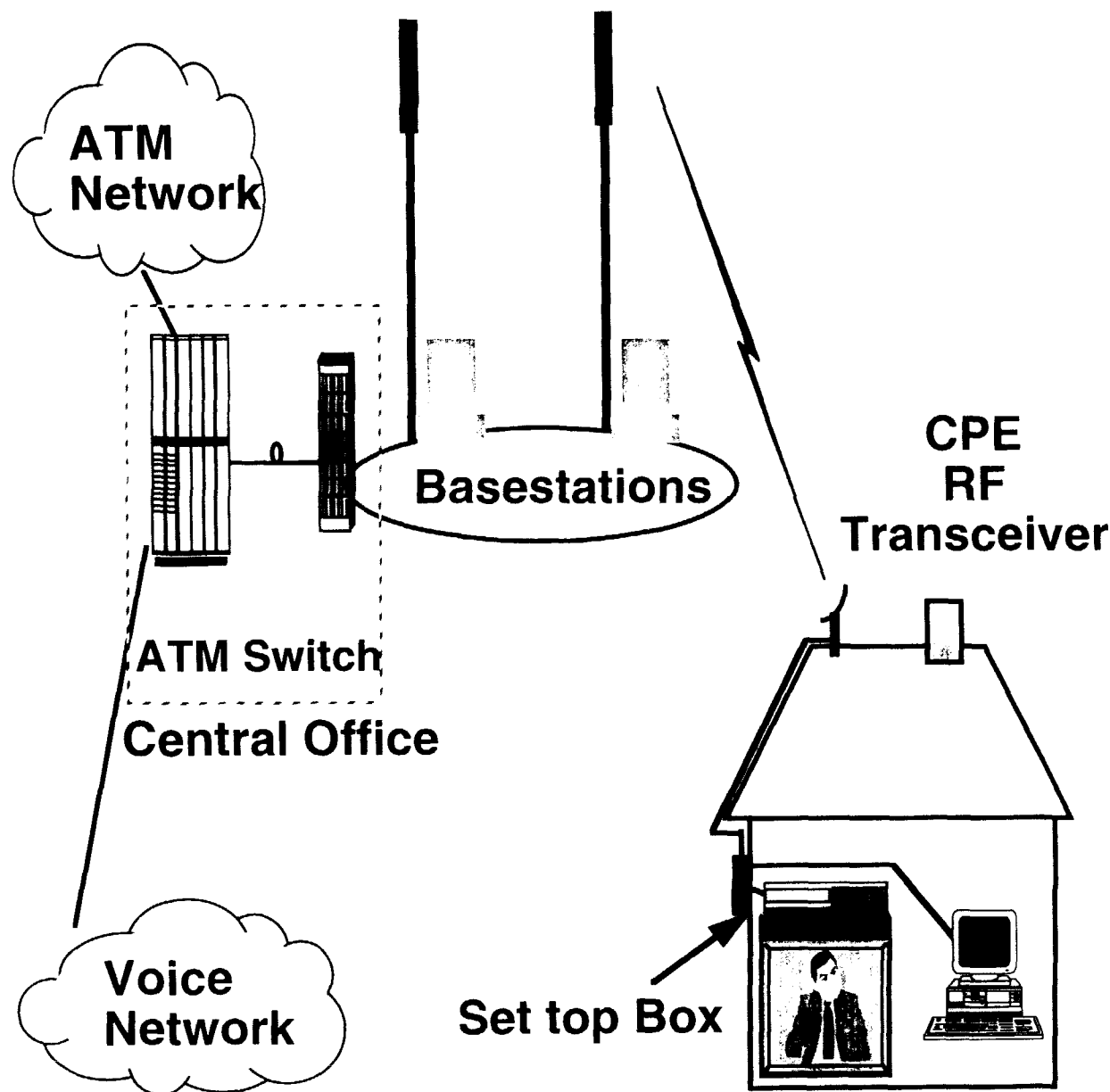
BROADBAND WIRELESS THE VISION

All-Inclusive-Services
Wireless Access
Vehicle
Video
Voice
Data

The Convergence of
Wireless and
Broadband

System Attributes

All Digital System
Supports digital television,
data, and voice on a
common platform
Utilizes SONET-based ATM
network infrastructure



Why is it important?

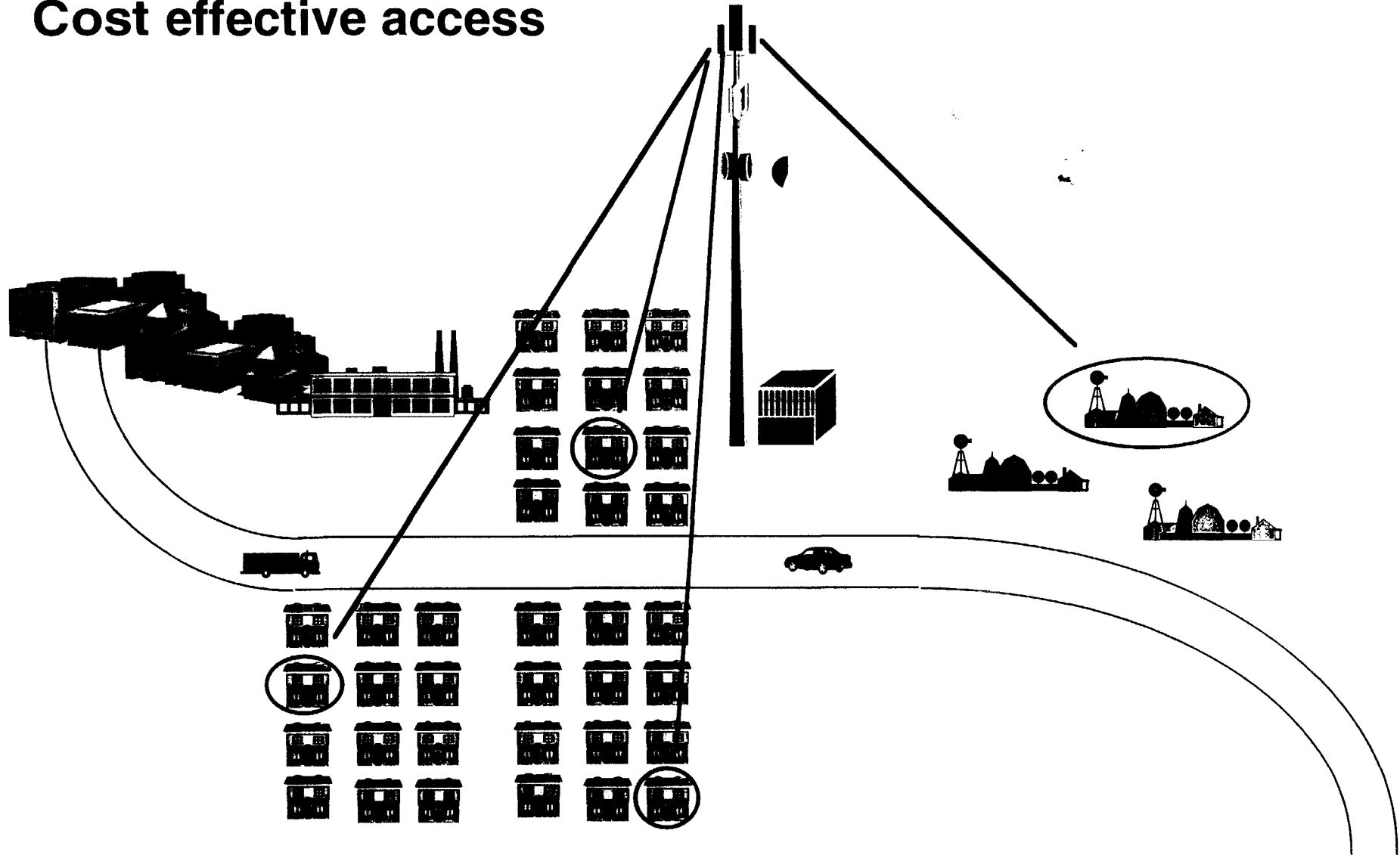
Facilitates Competition

Allows fast deployment

Evolving Technology

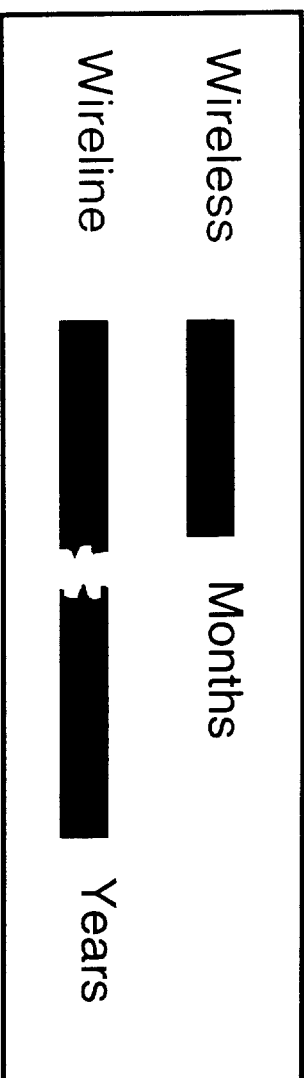
Facilitates Competition

- **Cost effective access**

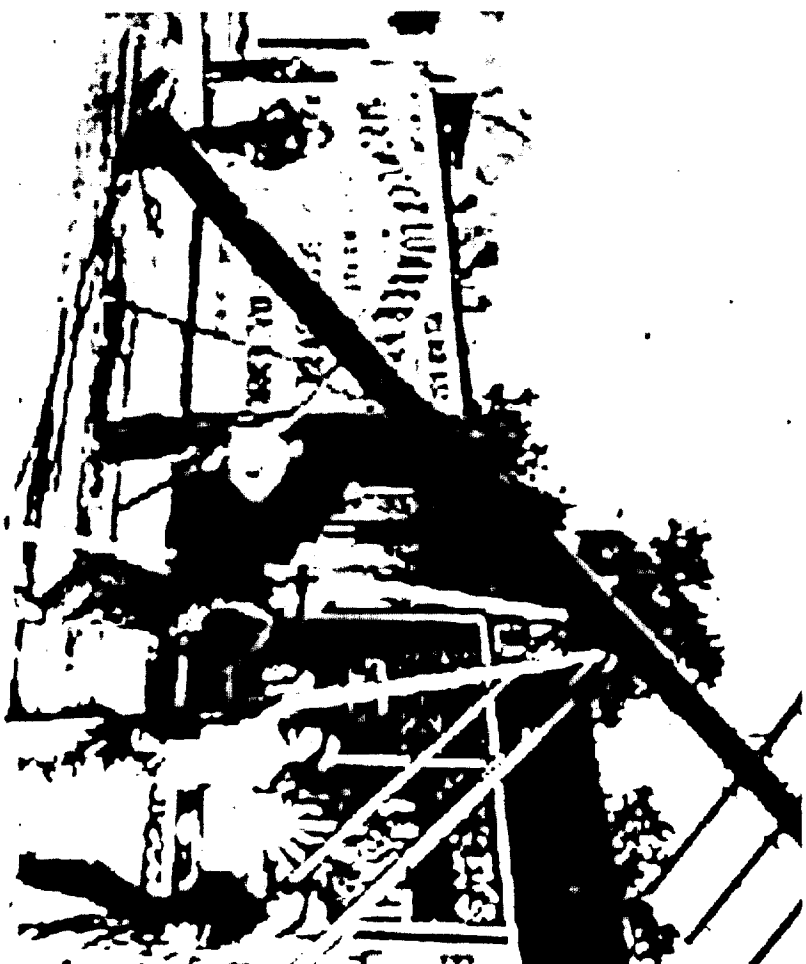


Time to deploy

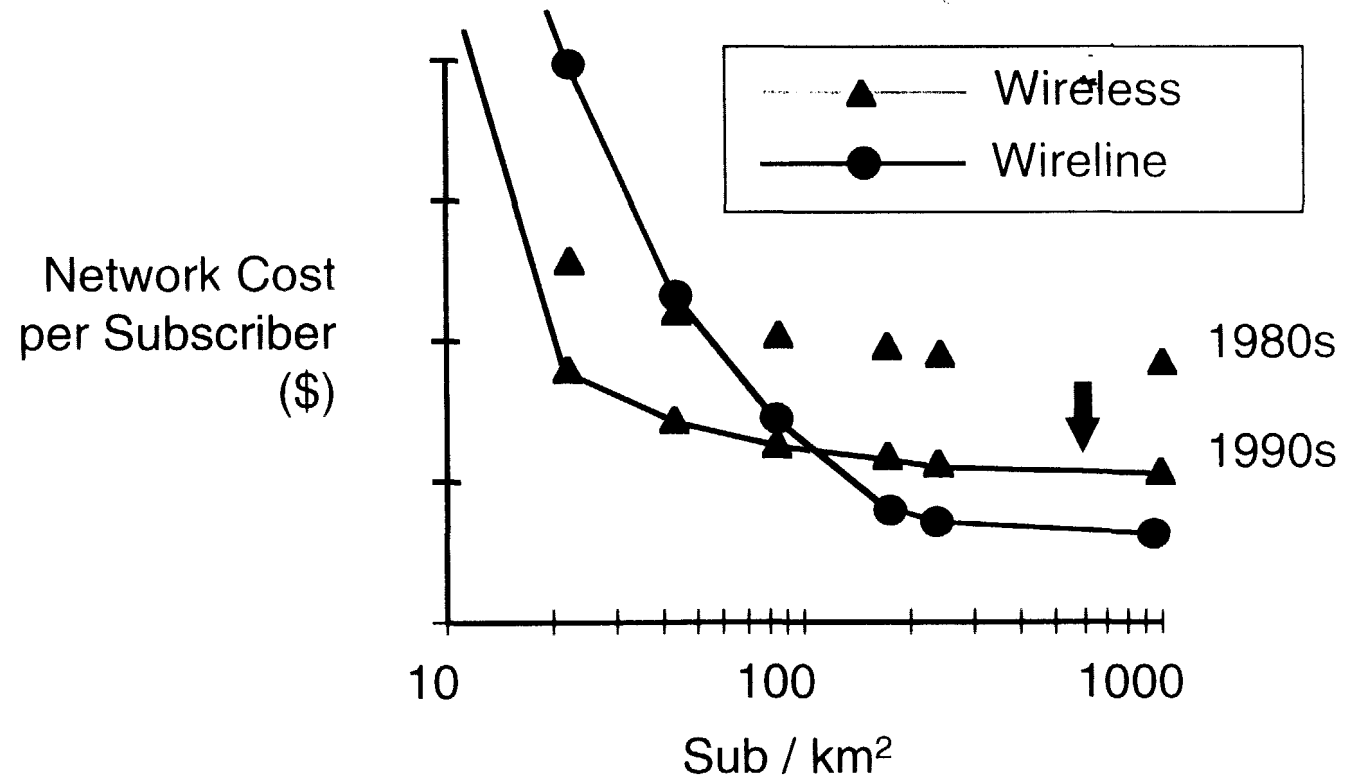
NORTEL
NORTHERN TELECOM



**Traditional Copper
Based Systems**

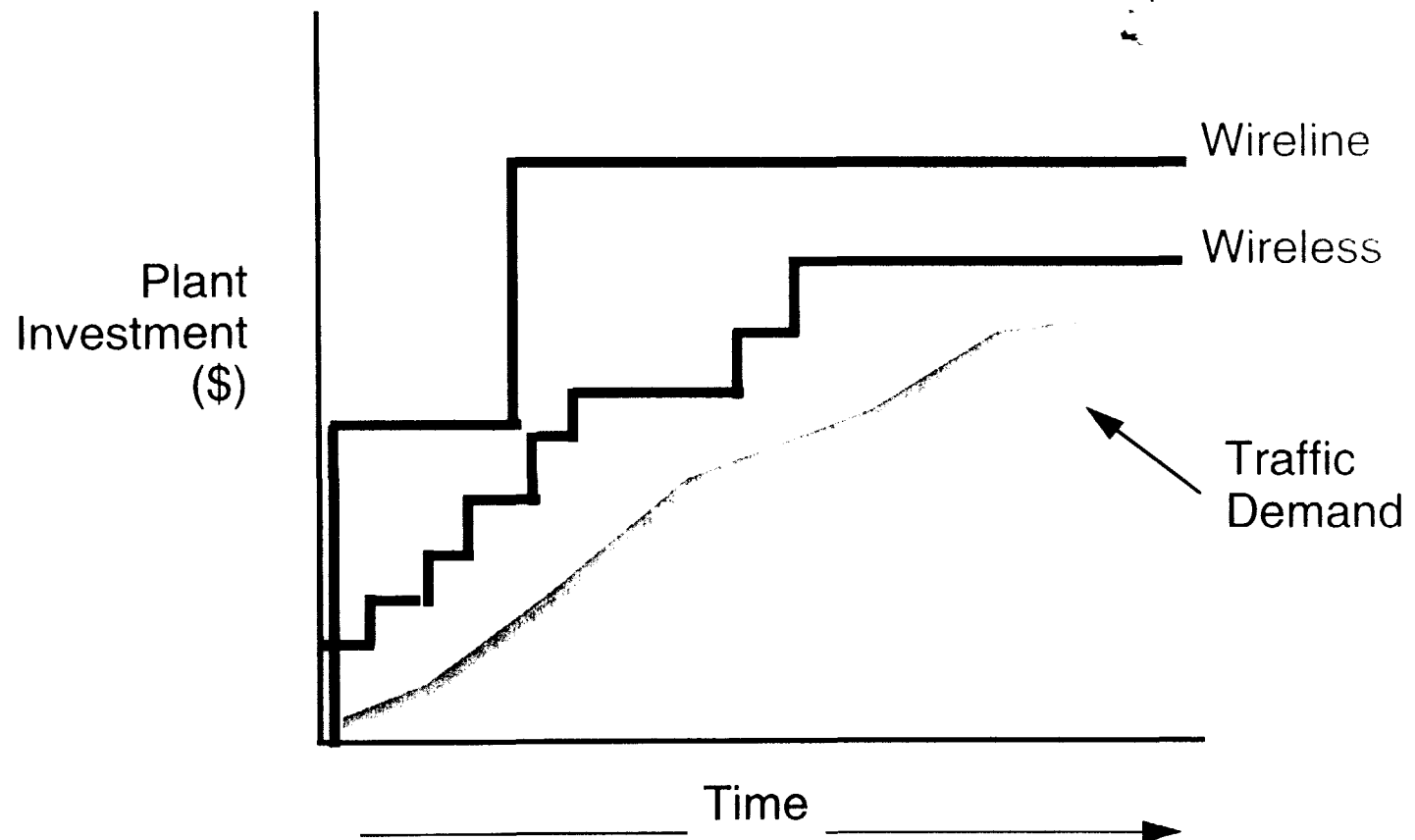


Capital Cost

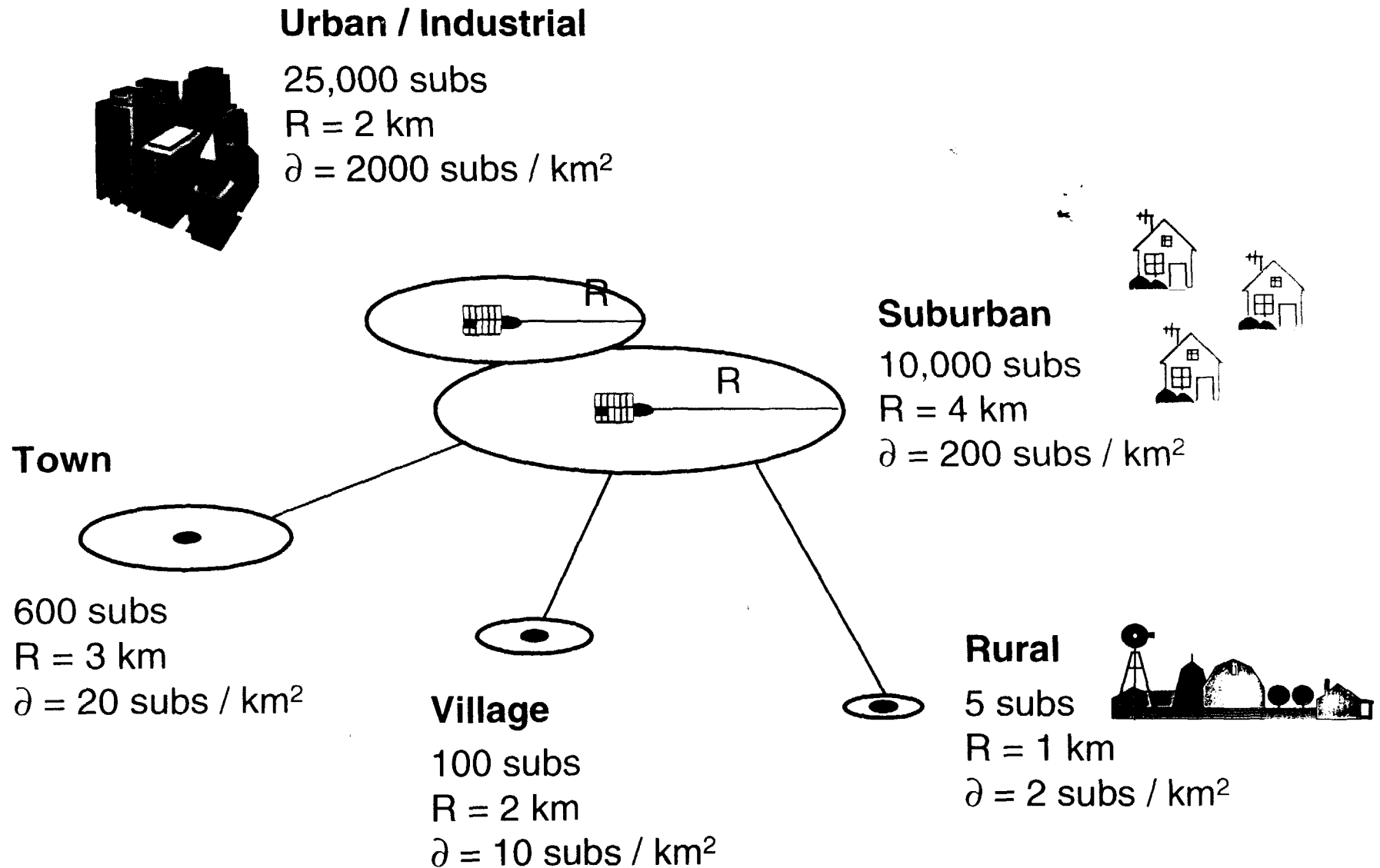


Why Wireless Access?

Flexible Network Design

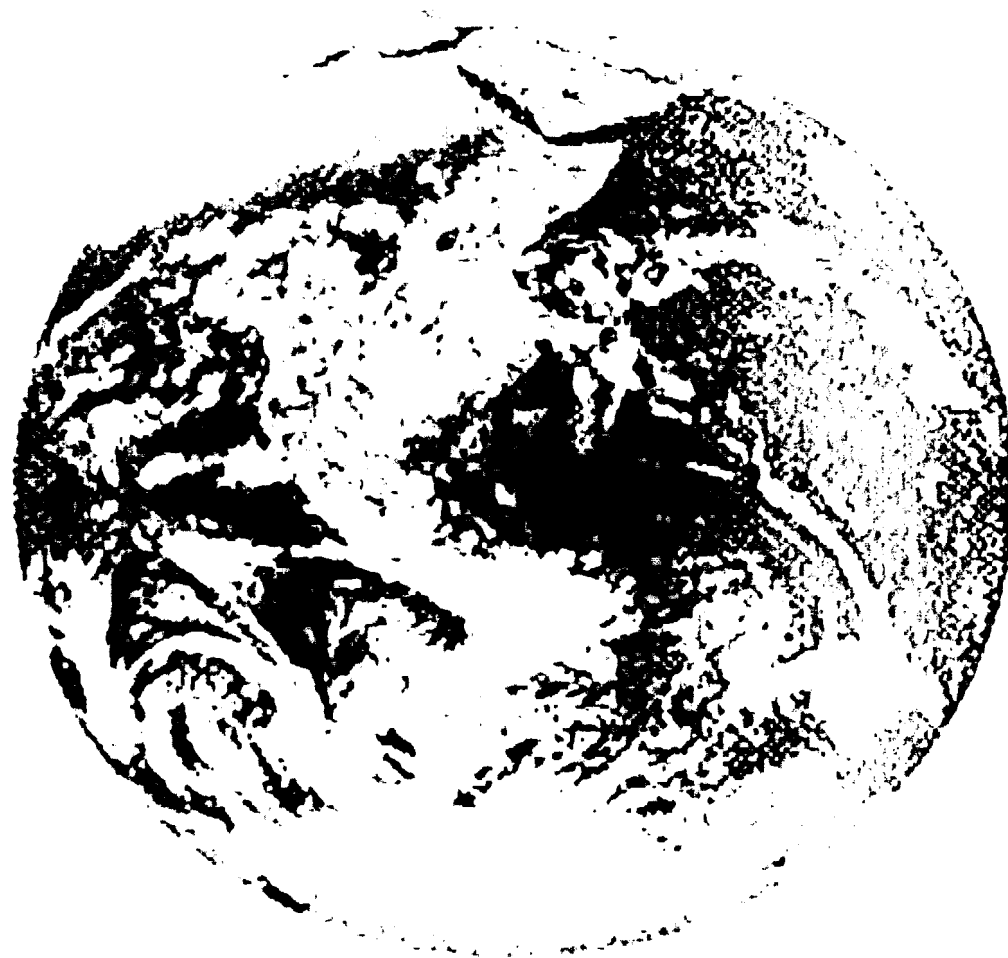


Application Areas



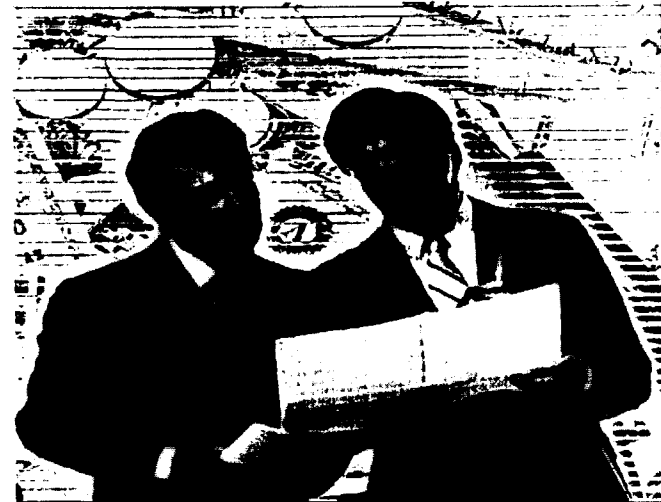
World Market Overview

- **Drivers**
 - > Telecom Policy
 - > Regulatory Initiatives
- **Current Activity**
- **World Market Estimate**



- **Telecom increasingly viewed as Political and Social Responsibility**
- **New networks often Public-Policy Driven**
- **Telecom has been proven to stimulate economic growth**
- **Goal of increasing Teledensity becoming part of global political landscape**

- **De-regulation**
- **Privitization**
- **Competition**
- **Economic globalization**
 - > nations permitting foreign investment**



Current Deployment

South & Latin America

Mexico	IUSA Cell
Colombia	Telecartegena
Bolivia	Codos
Brazil	Telebras
Chile	PTT
Haiti	Telecom D'Haiti



Current Deployment

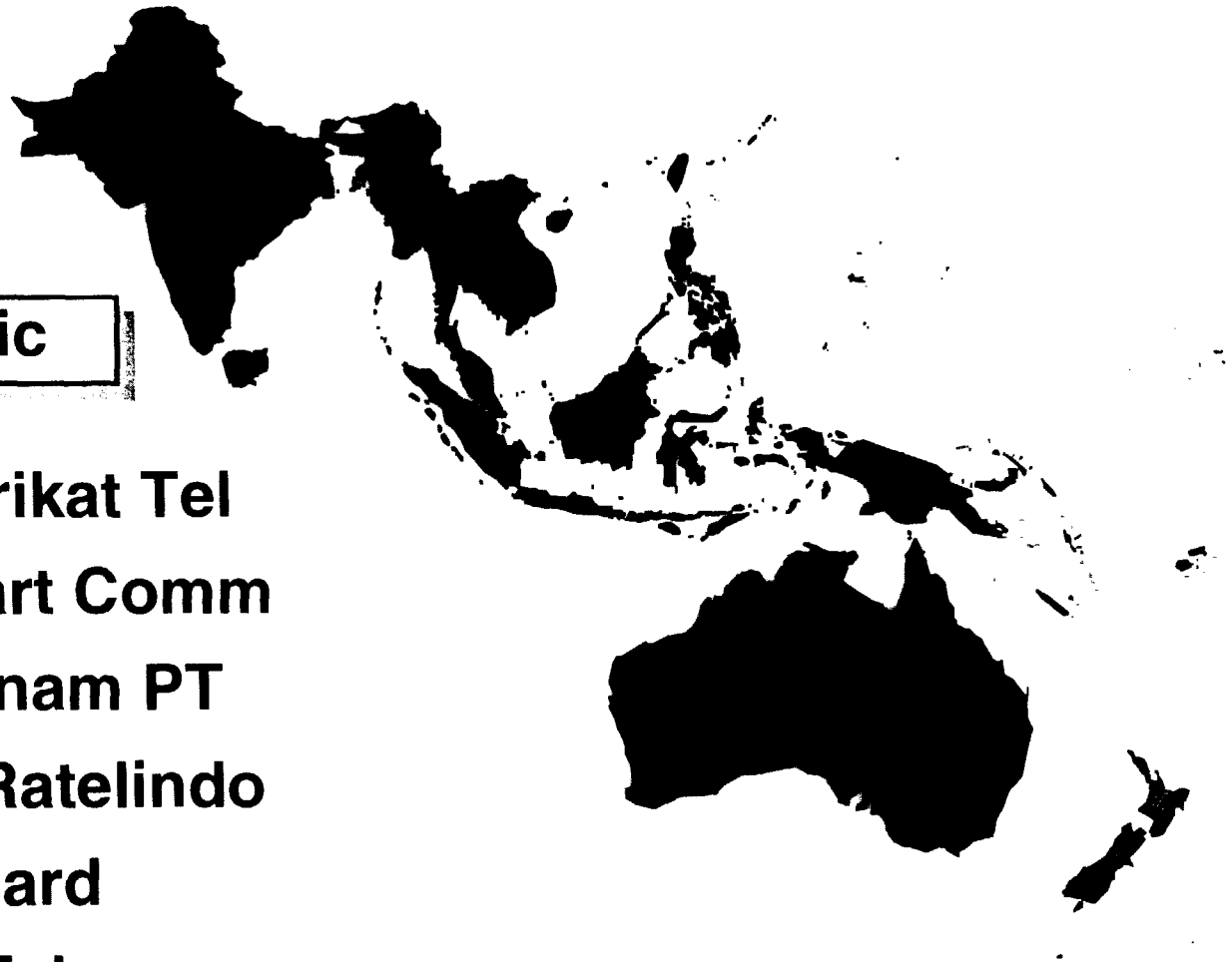
Europe and Africa

Spain	Telefonica
England	Ionica
Hungary	Matav
Czech	SPT Telecom
Finland	Telecom Finland
Poland	Polish TMC
CIS	PTT's
S. Africa	PTT
Ghana	PTT
Malawi	PTT



Current Deployment

Asia - South Pacific



Malaysia	Syarikat Tel
Philippines	Smart Comm
Vietnam	Vietnam PT
Indonesia	PT Ratelindo
Pakistan	Telcard
Sri Lanka	SL Telecom

Current Deployment

NORTEL
NORTHERN TELECOM

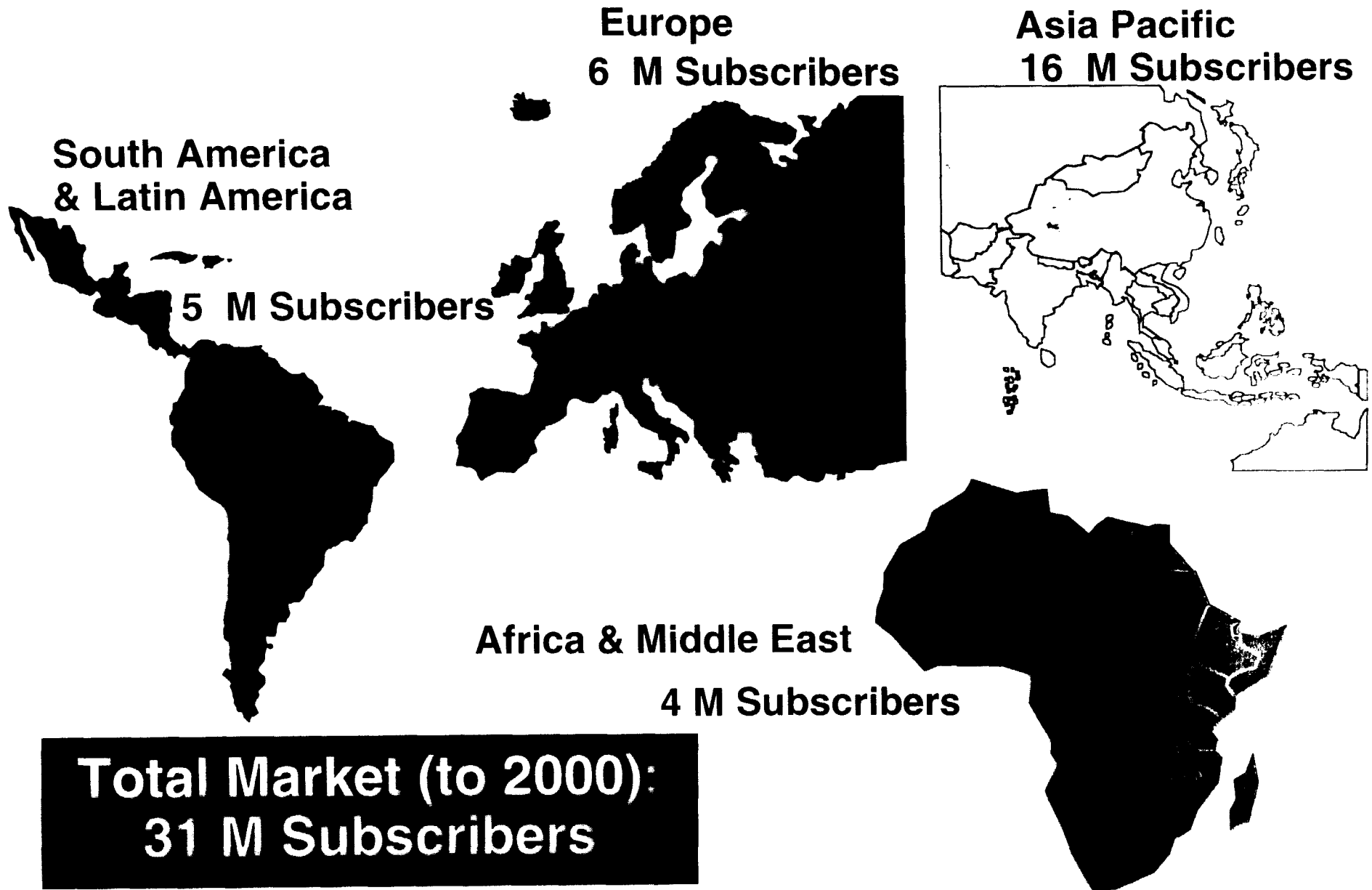
Greater China

Sichuan	PTT
Chengdu	PTT
Mongolia	PTT
Qinghai	PTT



Projected World Market

NORTEL
NORTHERN TELECOM



US MARKET OVERVIEW



- Drivers & enablers
- Market Applications
- Market potential

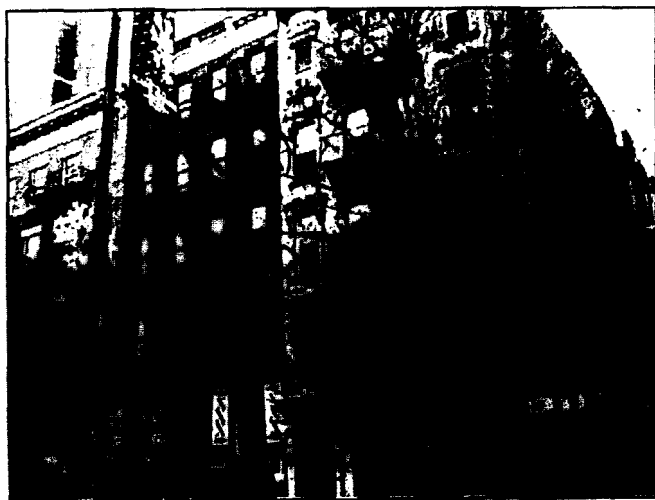


- **De-regulation**
- **Local access competition**
- **Carriers need for direct customer access**
- **Cost effective technology**
- **Customer push for choice and service value**

- **Market can be segmented into 4 areas:**
 - ★ **Primary single lines to home units**
 - ★ **Second line to home units**
 - ★ **Small business multi-lines**
 - ★ **Multi-unit structures**
 - ★ **Rehabilitation of outside plant**

“Typical” Old city Urban Residential Block

- “Typical” residential block is composed primarily of 4-6 story “brownstones” (generally 100-year old brick and frame constructions)



Front Street View



Typical Back Alley



50-Line Utility Box

Current Proposals in The U.S.:

- RBOCs (Domestic & International)
- Inter-Exchange Carriers
- Cellular & PCS Operators

**U.S. market potential estimated to be 6
million added lines (1996-2000)**

